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Cultural Subareas of Eastern Mesoamerica

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The Gulf Coast of Mexico has long been recognized as one of the major geographical and cultural regions within the Mesoamerican culture area. The cultures of the lowland regions of Veracruz and adjoining states have been divided into ethnic groups and areas on the basis of diverse criteria, many decidedly non-anthropological.

Nineteenth and early twentieth century travellers and investigators accepted the historical assumption, based on a partial reading of the sixteenth century sources and/or brief ethnographic observations that most of the coastal regions were ethnically and culturally Totonac.¹ This was only modified beginning in the thirties with explorations in southern Veracruz which lead to the recognition of Olmec culture and the existence of a Formative horizon (Stirling 1941; Drucker 1943a, 1943b; Weiant 1943). Slightly later the first lengthy sequence for the coast resulted from explorations at Panuco (Ekholm 1944; MacNeish 1954) and was attributed culturally to the Huastecs.

At about the same time (1931) Krueber made the first attempt to integrate cultural and environmental data for the Gulf Coast. He suggested a two fold division near Punta Bernal and indicated the possibility of a third sub-area for the Huastecs (1953:116).² As a result of these developments the coast was divided into three sub-culture areas represented by the Olmecs, Totonacs,

and Huastecs with boundaries placed at the Papoloapan and Cozones Rivers (Melgarejo Vivanco, 1949; Medellin 1960).³ New archaeological evidence, coupled with a re-interpretation of older data and ecological observations suggest that the tripartite division, still in use today, is no longer useful or accurate.

First, a few observations should be made concerning previous definitions of Gulf Coast cultural areas. Many imply or state cultural fixity through time, an assumption incompatible with anthropological evidence. Cultures are not static structurally or geographically today and are still less likely to have been in the past. Some definitions invoke rivers as boundaries. Such features are not viable limits for prehistoric agriculturists with a sub-state social organization. Agriculturists, and even Archaic hunters-gatherers, are far more likely to expand to the limits of contiguous exploitable resources, which can be minimally defined in terms of drainages. Fixed boundaries require permanent complex social institutions, as can be found in states, to enforce their maintenance. There is certainly no evidence of local state organization in the Veracruz lowlands prior to the Late Classic Period and even then it was not necessarily common throughout the entire region. Cultural areas, then should not be viewed as static entities and boundaries must be viewed as consistent with institutional integration.

¹Examples include Ruiz (1785), Von Humbolt (1811), Nebel (1836), Strebel (1885-9), Fewkes (1907), Batres (1908), Paso y Troncoso (1912), Blom and La Farge (1926-7), Krickeberg (1918-25), and Spinden (1933).

²Wissler, at a still earlier date (1917), and on somewhat different grounds, had associated northern Veracruz with the adjoining highlands and southern Veracruz with Oaxaca (1950: 264, 286-7).

³Variations of this division also occur (Covarrubias 1957; García Payón; 1971). Frequently northern and southern boundaries are not stated or are left at the Veracruz political borders.

⁴Starting in 1968 the cultural ecology of the lower Tecolutla drainage has been examined primarily through archaeological and ethno-historical data (Wilkerson 1973, in press, n.d.). The initial research (1969-1971) was sponsored by the Foreign Area Fellowship Program and the National Science Foundation (GS-2620). Subsequent research, including zoological, geological, and paleontological aspects, were sponsored by the National Geographic Society (Wilkerson in press).

The stimulus for this re-evaluation of cultural subareas comes from the investigation of culture contact and chronology in North-central Veracruz.⁴

Throughout the long sequence many distinctions are apparent between the northern and southern portions of Central Veracruz. These features are of such a magnitude as to suggest separate cultural subareas since at least the beginning of the Middle Formative Period. Not only are the more conservative domestic ceramics largely distinct but also most figurines, sculpture, architecture, and elaborate ceramics indicate differences of concept and execution. Similarities do occur but are generally manifest in variation indicating the dynamicism of the local culture.⁵

What is the extent of North-Central Veracruz? The exact perimeters will have to be verified, but some suggestions can be made. The northern boundary is certainly not the Cazonas River, which appears in many interpretations. A survey collection from the Tuxpan drainage (American Museum of Natural History), partially reported in Ekholm (1953), clearly indicates that artifact types found stratigraphically at Santa Luisa occur widely in the Tuxpan-Alamos region. The northern boundary will have to be north of those points.

The southern boundary must include at least the Nautla drainage, on the basis of the artifacts present there.⁶ The western limit is the most likely to fluctuate through time. By the later portion of the Classic Period it definitely encompassed Yohualinchan (\pm 1000m) and perhaps Xiutetelco (2100 m) and Napatecuhtlan (2400 m). The last two sites are at the edge of the central Plateau and are not likely to have been permanently within the essentially lowland oriented cultural subarea.⁷

The features which closely bound all of the above mentioned drainages and sites are a series of connected mountain chains: the Sierra Baja or Sierra Chiconquiaco on the south, the Sierra Otontepec on the north and the

Sierra de Puebla or Sierra Madre Oriental on the west (fig. 1).

The Sierra Chiconquiaco is very abrupt and extends eastward to the Gulf of Mexico attaining heights up to 2400 meters. It literally abuts the Gulf in the Punta del Morro-Villa Rica region reducing the coastal plain to sharp slopes.

The Sierra Otontepec is also rugged but is less of an overall barrier. Although it reaches a thousand meters in altitudes it varies considerably in height. Most portions are in excess of four hundred meters but some outliers only exceed two hundred meters. The chain extends eastward from the Sierra Madre Oriental, in the vicinity of Chicontepec, toward the southern part of the Laguna de Tomiahua. Significantly, it separates the Tuxpan drainage from the greater Panuco drainage.

The Sierra Madre Oriental attains heights in excess of 3000 meters. Most known sites exhibiting cultural attributes typical of North-Central Veracruz are to be found below the 1600 meter contour line. However, fluctuation in the upper Nautla and Tecolutla drainages, particularly during the Classic Period is quite likely, and occurs when Tajin culture has obtained greater institutional centralization.⁸

The Post Classic and Early Colonial Periods (El Cristo, Cabezos, Tapia phases) in North-Central Veracruz are instructive in considering cultural boundaries. Even then, when simple (militaristic?) states are probable there does not appear to be sharp cultural limits; rather there is intrusion manifest in fortified refuge sites such as Cerro Blanco (Wilkerson in press) and depopulation of fertile river terraces (Wilkerson 1973). Also institutional pressure gives rise to cultural resurgence, such as revival of old artifact norms (particularly in ceramic forms).⁹ Also occurring are interspersed settlement patterns resulting in shared resources and possibly shared material culture.¹⁰ Rivers are not utilized as fixed boundaries, and complex states, as in the Cen-

⁵Even such shared sculptured traditions as yokes appear to have some motif distinctions which are specific to each of the two cultural subareas. Anthropomorphic motifs with appraised hands and human figures on the ends may be restricted to North-Central Veracruz and dual-headed serpent motifs may be typical of South-Central Veracruz during the Classic Period.

⁶A brief viewing of some of the ceramics from La Higueras, under excavation by the Instituto de Antropología in Jalapa, suggest that the area may also include the smaller drainages of the Misantla, Colipa, and Juchique. Certainly the presence of sites such as Paxil and Aparicio, which have sculptural similarities with El Tajín, also suggest their inclusion, at least by late in the Classic Period.

⁷Tajin cultural influence in the eastern highlands can be seen in the stone sculpture of Cholula and in clay artifacts of the Nuine style in northern Oaxaca.

⁸The sites of the Tecolutla drainage, associated with Tajin culture (such as Tajin and Santa Luisa) increase in size in the Late Classic (La Isla A and B phases). Building activity as well as concentrated population size appear to augment considerably. At Santa Luisa demographic pressures on the river terraces (and nutritional stress?) forced agricultural exploitation (possible terracing) of the largely unproductive clay/sandstone hills adjoining the site (Wilkerson in press). Survey of other Late Classic sites in North-Central Veracruz suggest similar centralization. Some ceremonialism involved direct contact with the highlands as the sculptures of the South Ball Court at El Tajin clearly show maize plants in flower.

⁹Along the northern limit of South-Central Veracruz the considerable proliferation of "degenerate" smiling face figurines implies a stress and response not inconsistent with a nativistic movement (Wilkerson m.s.).

¹⁰The rather clear early Colonial evidence for interspersed settlement pattern, (Huastec-Totonac) has been discussed in Wilkerson (1973, in press, n.d.). Due to subsequent depopulation as a result of epidemics and colonial administration this pattern largely disappeared. In much of North-Central Veracruz Totonacs moved into the demographic void in the late 16th and early 17th centuries. A similar modern ethnographic interspersement pattern can be found in the Tuxpan drainage (Huastec-Otomi-Tepehua-Totomoc-Nahua).

tral Plateau do not exist.¹¹

What is the extent of South-Central Veracruz? Most investigations have concentrated on the lowland portions between the Papaloapan and Actopan Rivers. The northern boundary is the same Sierra Baja or Sierra Chiconquiaco while the western boundary lies somewhere in the Sierra Madre Oriental.¹² The northwestern portion has an almost continuous chain of peaks (Cofre de Perote-Pico de Orizaba) in excess of 3200 meters which made an effective barrier. The southwestern portion (Sierra de Oaxaca) rarely exceeds 3000 meters. The Tehuacan Valley above 800 meters, although part of the Papaloapan drainage, is not likely to be culturally a part of South-Central Veracruz, not at least during the Classic and Postclassic Periods when it is tied culturally more to the Central Plateau and Valley of Oaxaca.¹³

The southern boundary is conjectural, but based on the material culture at Tres Zapotes and elsewhere the San Juan and Tesechoacan drainages should be included in the area. Also, the raised area of Las Tuxtlas west of the Cerro San Martin would appear to fall within the same area. On the basis of this extremely tentative interpretation the southern boundary would run from the Cerro San Martin (1600 meters) through swamps separating the San Juan from the slightly higher ground near the Coatacoalcos. Of all the boundaries discussed so far this is the most unsatisfactory. However, in an extremely low area a premium would be placed on high ground for habitation, especially river terraces, and swamps, although exploited for food, would constitute demographic voids.

Flanking South-Central Veracruz on the east is the Southern Veracruz-Tabasco area. Its precise dimensions are for the most part conjectural. At the minimum it includes the Coatacoalcos and Tonalá drainages. The western boundary may lie in the swamp area west of the

latter river and the southern limit near the 800 meter contour line of the Sierra de Chiapas.

Moving eastward along the coast is the Northwestern Maya area. Its Classic boundaries are also somewhat uncertain and probably labile. During the Classic its major site was Palenque and it represented the westernmost extent of true Classic Maya culture. It is essentially the lower Usumacinta drainage but the boundary appears to run from the swamps around the Laguna del Carmen and Laguna Machona through the low area between the Zanapa and Mezcalapa rivers. The western boundary should be the high and more arid ground just to the west of the Laguna de Terminos, roughly on a line between Escarcega and Sabancuy. The southern boundary is in the Sierra de Chiapas, perhaps around the four hundred meter line, and then back from the low area of higher rainfall around the Laguna de Terminos.

Bordering North-Central Veracruz on the north is the North Gulf area which has relatively clear borders. It is basically the combined lower drainages of the Panuco and Tamesi Rivers, covering portions of Tamaulipas, San Luis Potosi, Queretaro, Hidalgo, and Veracruz. Its southern limit is the Sierra Otontepec while to the west is the Sierra Madre Oriental and to the north the Sierra de Tamaulipas (1000 meters). The western border of this, like North-Central Veracruz, should appear to be near the 1600 meter contour line in the Late Classic.¹⁴

On the basis of variable archaeological evidence and topographic features, four subareas have been postulated for the Eastern Gulf Coast of Mesoamerica. These areas appear to have distinct origins going back at least through the Late Formative. What about earlier time periods?

The evidence prior to the Middle Formative is scanty. The Early Formative Period in North-Central Veracruz is only represented by the non-abundant Ojite

¹¹ The very late Postclassic along the Gulf Coast seems to be characterized by confederations, as in the Zempoala and Sierra de Puebla areas and outposts of the highland tribute states (as at: Cotuxtla, Nautla, Tuxpan). The pictorial arrangements of both the *Lienzos de Tuxpan* (Melgarejo 1970) and the *Cordice de Chiconquiaco* (1542) (and possibly the *Relacion Geografica de Papantla*, Carrion 1965) illustrate that the local late Postclassic and Early Colonial indigenous societies centered on drainages rather than use rivers as boundaries.

¹² The frequently referred to "semi-arid" area (Medellin 1960), due to predominately northerly winds dropping rainfall on the north side of the Sierra Chiconquiaco in the late rainy season, is not an effective cultural barrier. Although, during the Late Formative there are some artifact distinctions, (Medellin 1960: Plano 3), especially figurines which characterize it, by the Classic Period it reflects the South Central area as a whole; note the widespread occurrence of the "smiling face" figurines from Tres Zapotes to Ranchito de las Animas. The earlier Trapiche materials (García Payón 1965) also indicate that this northern portion of the subarea is not sufficiently distinct to form a totally separate unit.

¹³ South-Central Veracruz is unlikely to have surpassed the level of a chiefdom in social intergration throughout most, if not all of the Classic Period. The lack of cohesive widespread institutions is illustrated by the diversity of cult artifacts, particularly figurines (Wilkerson m.s.). The great variation (especially clay artifacts) and irregular distribution (stone artifacts for example) of material culture, as well as the seeming lack of concentrated sites and population, suggest small or loosely knit political units. There is, for instance, no dominating classic culture such as Tajin culture in North-Central Veracruz.

¹⁴ The site of Buena Vista, reported by Du Solier (*et al.*, 1947), and most of the site examined by Troike, *et al.* (1972) fall in the 800-1000 meter range. This parallels, the highland extension of North Central Veracruz, and probably dates to the Late Classic and Early Post Classic (Zaquil and Los Flores phases). However, artifacts associated with the San Joaquin mining (obsidian) area (Consejo Nacional de Recursos no Renovables 1970) in the 1600-2000 meter range suggest an extension or heavy influence in eastern Queretaro. Trace element analysis of obsidian artifacts from North Central Veracruz (Wilkerson 1973) indicates not only a heavy reliance on resources in Queretaro but also an Archaic time depth. Nonetheless, the dry steppe climate (Koppen BS) and artifact distinctions (Troike 1972: 80) may indicate a regional variant, within the greater cultural subarea, for the Late Classic-Early Postclassic in the extreme west of the area.

Phase, which seemingly falls at the very end of the period. However, the limited evidence tends to indicate considerable (if not complete) similarity with artifact types of the North Gulf area, especially the Ponce Phase at Panuco. It would appear probable that these two areas formed a single cultural subarea at that time (fig. 3). By the Middle Formative, however, North-Central Veracruz was a separate subarea (fig. 2) with distinctive material culture.

South-Central Veracruz and Southern Veracruz-Tabasco may also have a similar relationship during the Early Formative. The proposed Olmec "Climax Area" includes most of both areas; this cultural unity may have persisted well into the Middle Formative. Conceivably there was a single subarea from the beginning of Olmec expansion (San Lorenzo A Phase?) until the disintegration of Olmec pre-eminence in the Middle Formative. However, if the Olmecs are intrusive onto the coast from the Pacific watershed, as has been suggested (M. Coe 1970), then it is unlikely that the northern portion of South-Central Veracruz was Olmec, or Olmec dominated, until after there had been a period of development in Southern Veracruz-Tabasco.¹⁵ Nevertheless, by the Late Formative South-Central Veracruz manifests distinctive material culture suggesting its relative cultural autonomy.

The earliest cultural evidence, which belongs to the Archaic Period, can not yet be discussed in such precise terms. However, some implications can be presented. The Polo Hueco Phase; in North-Central Veracruz indicates the presence, in surprising numbers, of Archaic hunters-gatherers who simultaneously exploited various contiguous ecological zones. The tool assemblage is quite distinct from those of the Abasolo Tradition in the Sierra de Tamaulipas to the north and somewhat distinct from those of the Tehuacan Tradition to the west in the Highlands. Although the data is now inconclusive, there is a definite possibility of an eastern cultural subarea in the lowlands as early as Archiac times, perhaps predating the larger Mesoamerican cultural areas as a whole (fig. 4).

All of the cultural subareas, exclusive of the still undefined Archaic area, constitute geological and ecological units. All are located in the coastal plain and the foothills east of the Sierra Madre Oriental, with

occasional extensions onto the Central Plateau. The North Gulf Coast is essentially the Tampico embayment.¹⁶ This area represents the northernmost extent of the tropical wet and dry climate (aw' Koppen classification) which is found throughout the Gulf Coast.

North-Central Veracruz is a smaller embayment north of the Sierra Chiconquiaco while South-Central Veracruz is the largest Papoloapan embayment stretching to the volcanic uplift of Los Tuxtlas. Southern Veracruz-Western Tabasco (South Gulf) is essentially the merging of the Isthmian and Coastal Plain bordered by swamps of drowned drainage and Sierra de Chiapas.

Rainfall increases from north to south varying from 900 to 3000 mm annually (fig. 5). Soil types are also largely distinct in each of the areas (fig. 5). Vegetation is quite variable and may, as in the case of the North Gulf Coast (Sanders 1971:544) be altered from the original tropical forest to savannah, due to colonial and modern modifications.¹⁷

Ethnicity has been treated elsewhere (Wilkerson 1973, n.d.) and can only be mentioned briefly here. Both archaeological and ethnohistorical evidence indicate the presence of the Huastecs in the North Gulf area since the Early Formative (Ekholm, 1944, MacNeish 1953). North-Central Veracruz (and Tajin culture) also appears to be Huastec until at least the end of the Late Classic Period. In the Postclassic various highland oriented groups are present, ending in the latter part of the period with the Totonacs interspersed with the Huastecs in the southern part of the area and largely under Aztec political (and economic) dominance.

The relatively late arrival of the Totonacs on the coast also carried them into the Sierra Chiconquiaco and into the northern, drier portion of the South-Central area; further south Nahuatl and other non-Mayan speakers had also moved into the area. Due to the routes from the Central Plateau to the southeast it seems likely that the disruptive migrations typical of the Postclassic in the areas to the north probably began earlier here during the Classic Period. Prior to and perhaps during much of these migrations, the area may have been occupied by the Mayan speakers intermediate between what Swadesh (1961:235) calls the "inik" and "winik" divisions. The Huastec-Mayan separations would have been initiated by the Olmec movement into Southern

¹⁵This is suggested by a number of factors including the sculpture of El Viejon which has been labeled "Colonial Olmec" (M. Coe 1965: 742; Bernal 1969: 149-50) and has been dated more in accord with the predominately Middle Formative site of La Venta rather than the earlier San Lorenzo. Viejon has a location astride the only sea level route between South-Central and North-Central Veracruz. Such a position on a potential trade route suggests a similarity with the pattern of strategic trade locations proposed by Grove (1967, 1968) for highland Morelos at approximately the same time.

¹⁶The most appropriate nomenclature for the cultural subareas is open to question and is largely arbitrary. The labels used in this discussion are modifications of the area titles found in the existing literature. More exact might be the area of geological terms Tampico Embayment, Papoloapan Embayment, etc. but use of geographical-political terms is firmly fixed in the Mesoamerican literature.

¹⁷Beginning on the North Gulf and North-Central areas, cattle raising has utilized savannah and prompted the clearing of forest, and even mangrove stands, since the sixteenth century. Plantation agriculture, beginning with sugar cane in the early sixteenth century, in the South-Central area, and proliferating for the international and national fruit markets in the twentieth century (primarily in North-Central to Southern areas), has modified considerably the river terraces and alluvial plains. Increased population density, soil depletion, and land tenure have all lead to a break down in the swidden agricultural pattern and a decrease in the originally predominate jungle cover.

Veracruz and subsequent dominance of the South-Central area.¹⁸ It would have been completed by the migratory disruptions, and perhaps absorption, during the Classic Period in the two areas.

In summation, we can derive a series of conclusions concerning cultural subareas of the Gulf Coast by examining the archaeological and ecological evidence now available:

1. There are four natural geologic and climatic regions along the Gulf Coast which constitute relatively distinct ecological units; the North Gulf Coast, North-Central Veracruz, South-Central Veracruz, and Southern Veracruz-Western Tabasco.

2. These areas, consisting of one major and several small river drainages, or several medium drainages, are usually bounded by mountain chains, or uplifts, in excess of 400 meters and frequently over 1000 meters in height. The southernmost area, however, is bounded by swamps with little high ground useful for habitational purposes.

3. Archaeological evidence suggests that these four areas were distinct culturally from the late Formative through the Postclassic Period, but were not static entities. The western boundaries, particularly varied dur-

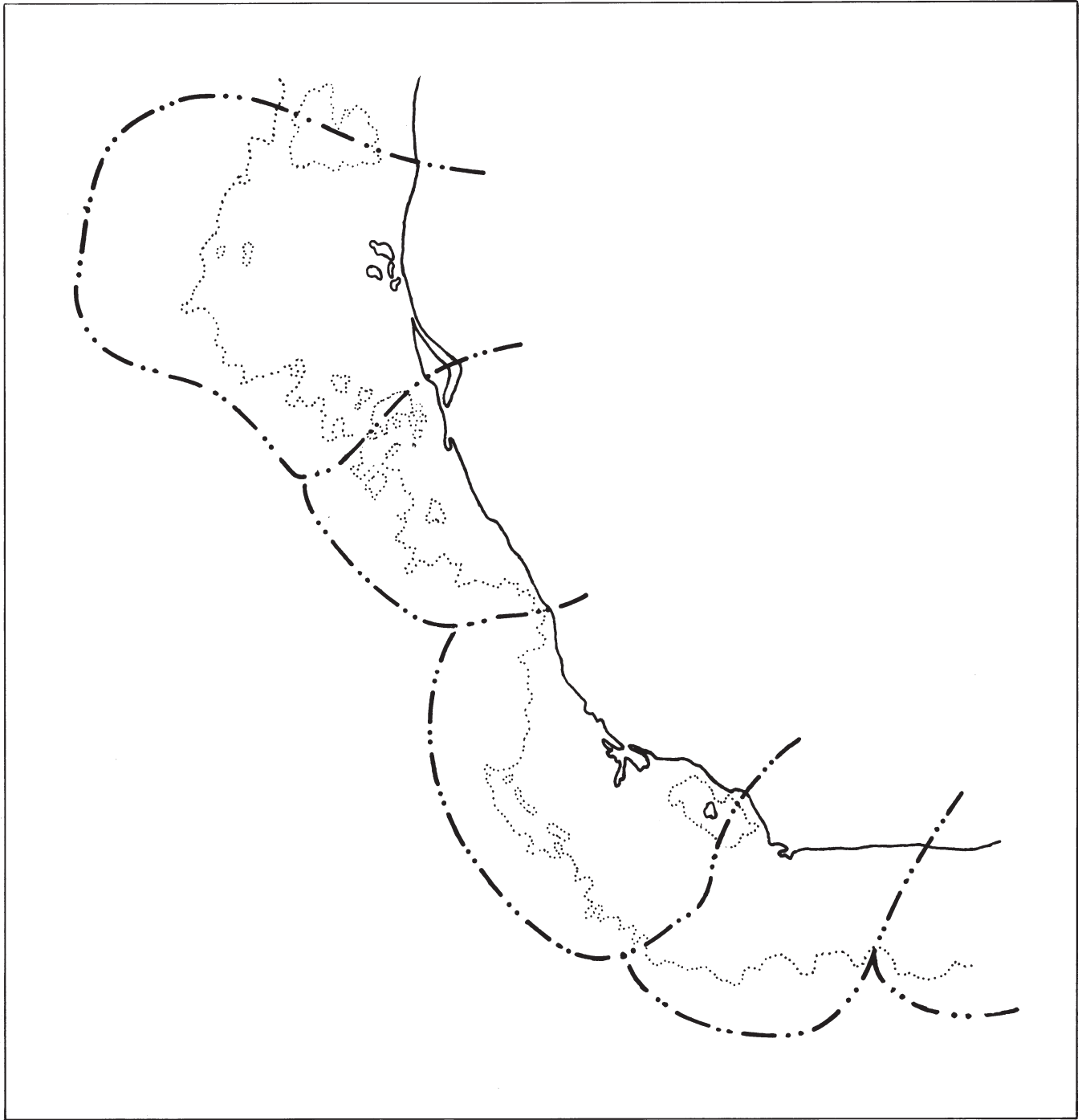
ing the Classic Period, reaching up to near 2400 meters altitude on the Plateau in the case of North-Central Veracruz. The Postclassic parameters may have been still more erratic but evidence requires further examination.

4. During the Early Formative Period there were two cultural areas separated by the Sierra Chiconquiaco. By the Middle Formative North-Central Veracruz became a separate entity.

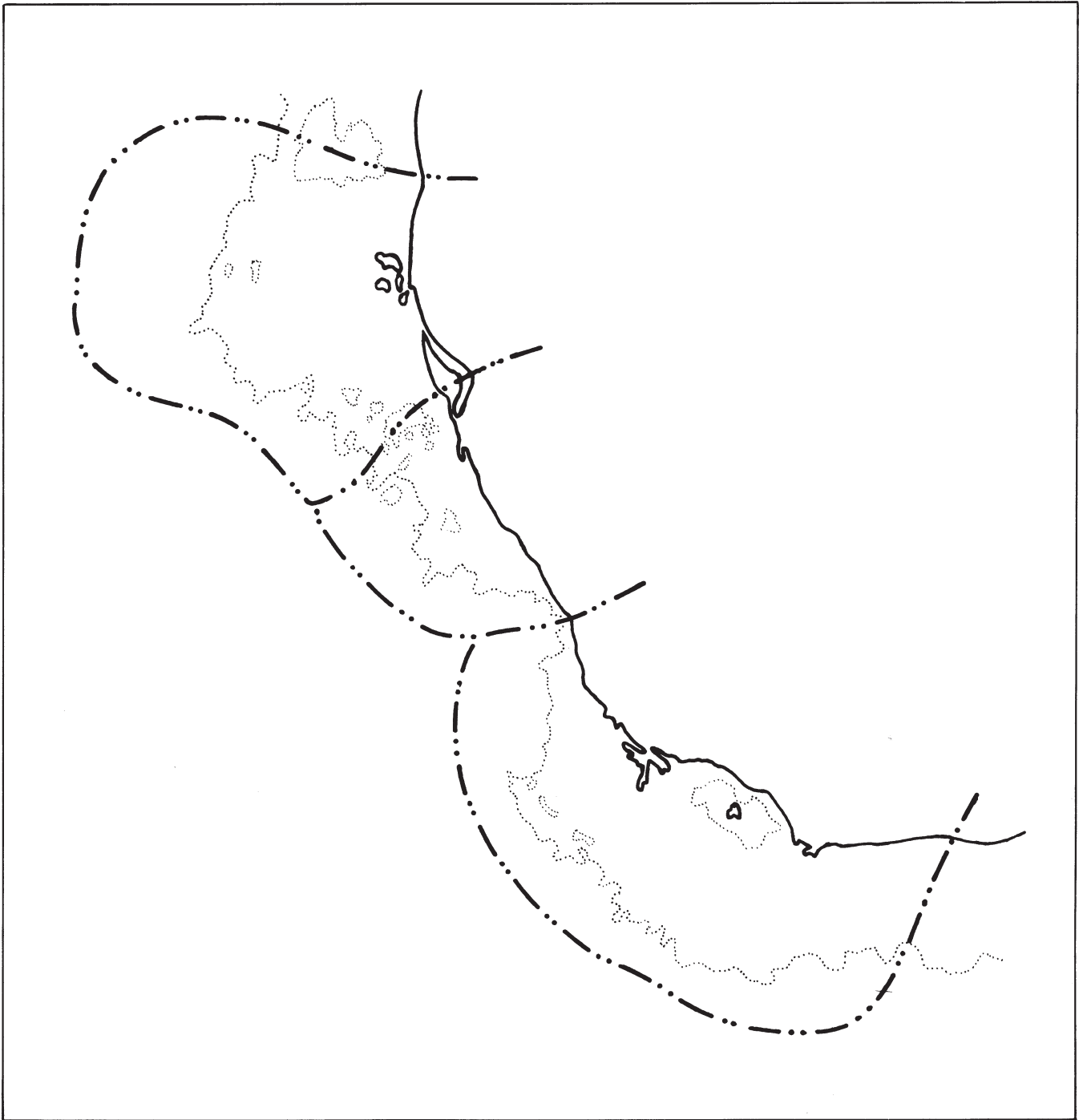
5. Inferences from the Archaic Period data in North-Central Veracruz indicate a possible lowland cultural area. Its limits are largely indefinite but do not reach the Sierra de Tamaulipas on the north of the Central Plateau to the west.

6. Evidence pertaining to ethnicity indicate that the Huastecs inhabited both of the northern areas from the Early Formative Period. Other ethnic groups, including the Totonacs, appear to have moved, and in some cases through these areas in the Postclassic and very late in the Classic. South Central Veracruz and Southern Veracruz-Western Tabasco are postulated to have been occupied by intermediate Mayo-Huastec speakers who are first dominated by the Olmec and then culturally disrupted and perhaps absorbed by highland-lowland migrations during the Classic Period.

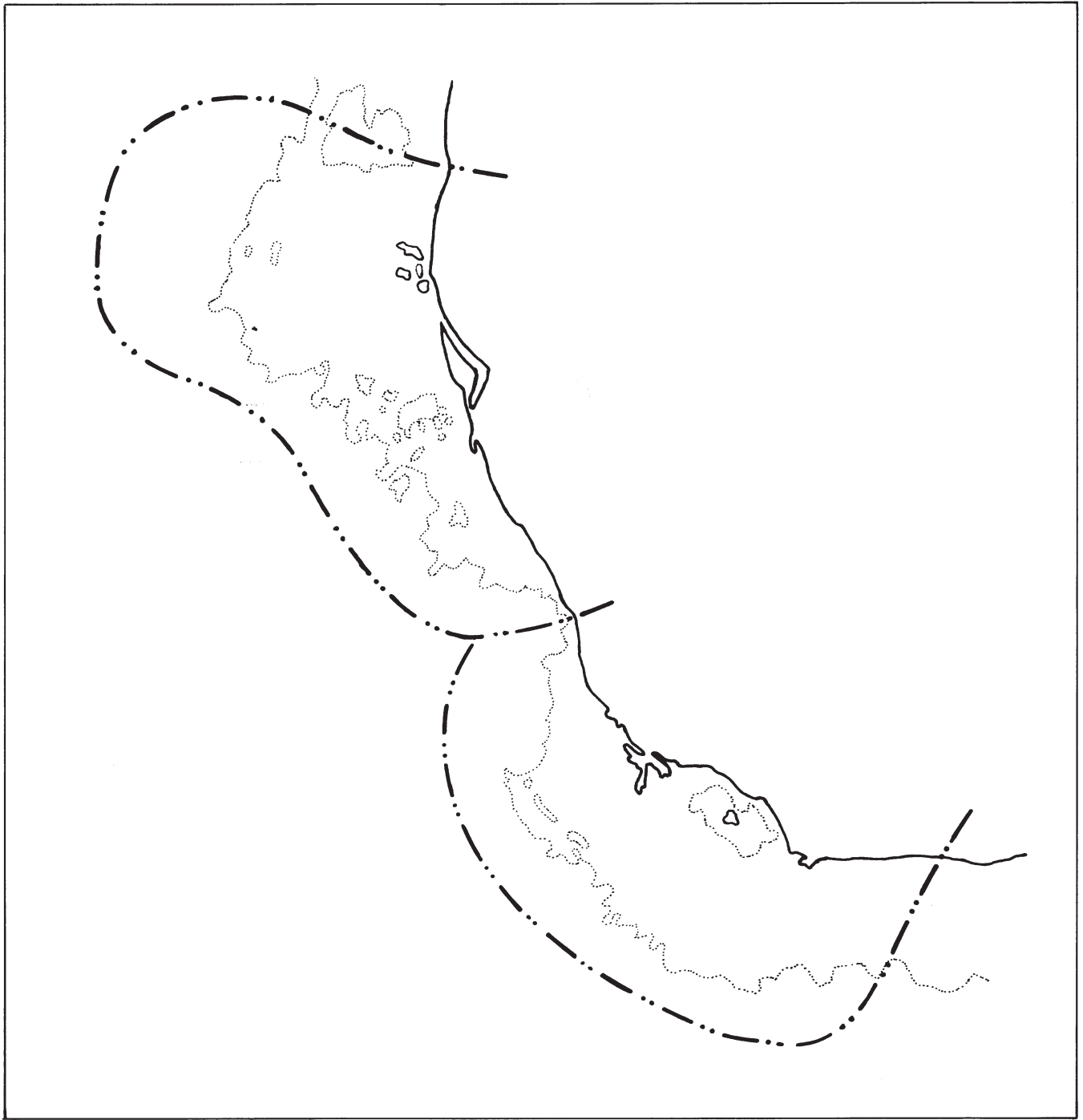
¹⁸If the Olmecs separated the Maya, or Proto-Maya speakers of the Gulf Coast this does not have to be interpreted as signifying the Olmecs spoke an entirely different language. Conceivably their language, or dialect, was related but sufficiently distinct to interrupt, in conjunction with their then novel social attributes and practices, communication between the Mayan groups northwest and east of them. By the time Olmec culture broke down, or was destroyed, these separated Mayan speakers had developed their own diagnostic cultural attributes, albeit heavily influenced by Olmec concepts, and their own separate languages.



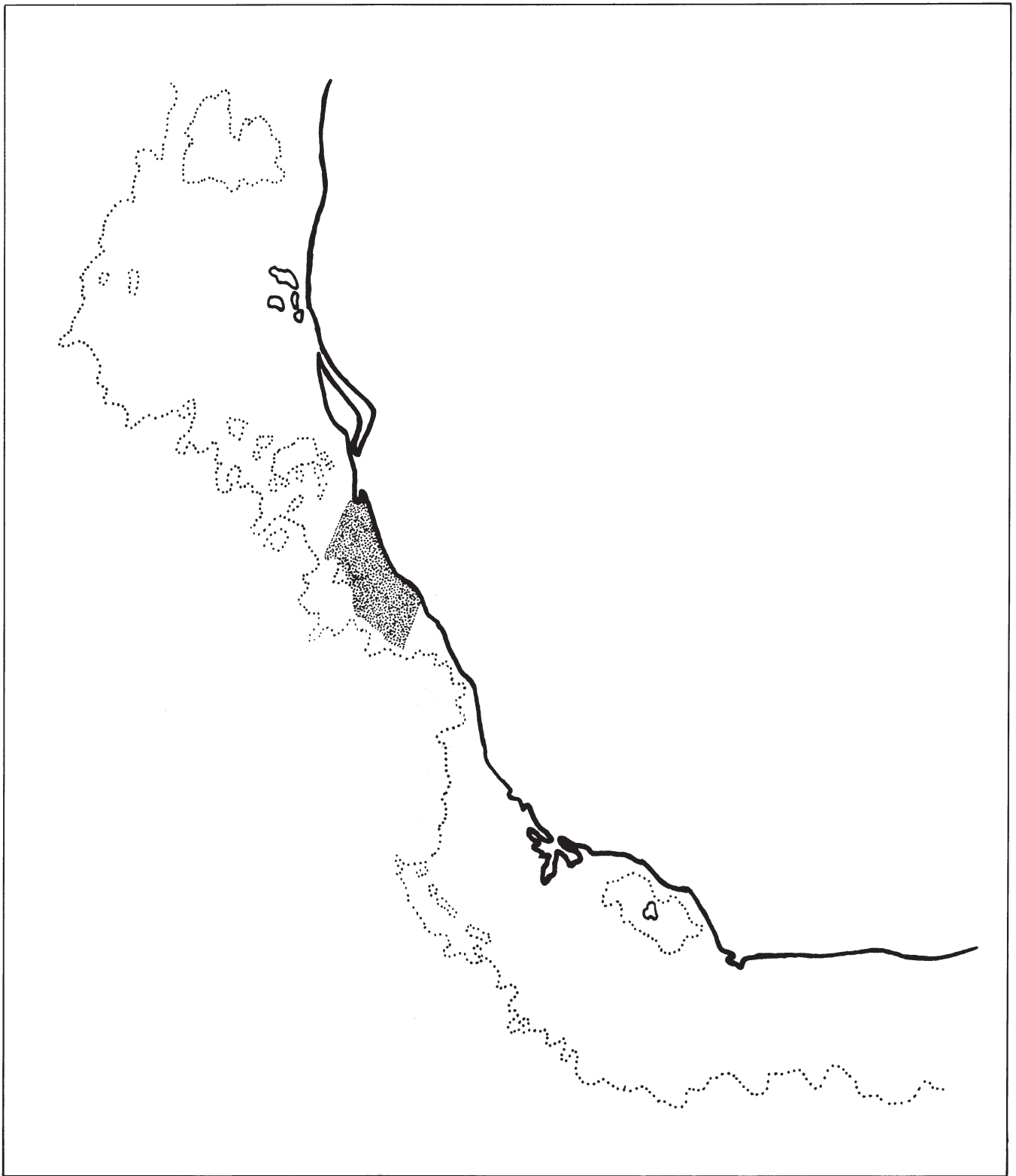
*LATE FORMATIVE – POSTCLASSIC
Cultural Subareas of the Gulf Coast
FIGURE 1*



*MIDDLE FORMATIVE
Cultural Subareas of the Gulf Coast
FIGURE 2*



EARLY FORMATIVE
Cultural Subareas of the Gulf Coast
FIGURE 3



ARCHAIC
Cultural Subareas of the Gulf Coast
FIGURE 4

Area	Temperature			Rainfall			Soils
	Max.	Min.	Annual Mean	Max.	Min.	Annual Mean	
North Gulf	51 31.5*	0 15.9*	25	2500	900	1000	Calcimorphic (Rendzina) Podzolic
North-Central Gulf	43.6 32.3*	09 16.2*	24	2300	1200	1400	Podzolic
South-Central Gulf	- 36.1	- 16.6	26	2000	900	1800	Lateritic
South Gulf	- 35.4	- 17.0	26	3000	2000	2500	Calcimorphic (Rendzina)

+ Data abstracted from Instituto de Ciencias (1963), Seretaria de Recursos Hidraulicos (1961) and Stevens (1965).
*Monthly Mean

Fig. 5. Climatic and Soil Variation +

Fig. 6. Tentative Distribution of Miscellaneous Material Culture Tracts*

Material Aspect		Cultural Subarea				
Period	Structural	North	North-Central	South-Central	South	MAYA Northwestern
Early Formative	earth fill mounds with no apparent covering				X	
	stone water drains				X	
Middle Formative	plaza floors of colored sand				X	
	plaza walls multi-sided asymmetrical mounds elaborate fired clay hearths with outflaring sides		X		X	
Late Formative	completely round temple platforms	X				
	fired clay plaza floors	X	X	?		
	stone aggregate cement		?			
Classic	asphalt on earth mound fill	X	X			
	"flying" cornice	X	X			
	rectangular temple platforms with round edges	X	X			
	vertical walled ball courts		X			
	niches in "tableros"		X			
	asymmetric temple isolating platforms		X			X
	stone xical coliqui motif (niche and wall)		X			
	non-supported flat vaulted cement roofs		X			
	corbeled arch		X			X
	platform and mound tunnels		X			X
	mosaic-like facade		X			
	two-story palace structures		X			X
	Columnade screen (for temple stairways)		X			
partially megalithic temple platforms			?			
sherd cement aggregate			X			
Post-Classic	Walled temple precincts		?	X		
	decorative stone/cement merlons on temple platforms			X	X	
	fortified mountain sites	?	X	X		
	walled (non-mountain) sites		X			
	unfired anthropomorphic clay altars			X		
	irrigation/water transport system			X		
miniature temple tombs				X		

*This provisional listing is not inclusive. Items were selected to illustrate relationships and unique aspects of the various cultural subareas. Only a few ceramic types are included and no reference is made to ceramic forms.

Fig. 6. Continued

Material Aspects		Cultural Subareas				MAYA northwest
		North	North-Central	South-Central	South	
Early Formative	Ceramics and General Utilitarian Artifacts					
	Progreso White: Progreso Variety	X	X			
	Santa Luisa Heavy Plain	?	X			
	Kaolin paste vessels				X	
	“bicolor” ceramics			X	X	
	“baby face” figurines				X	
Middle Formative	scalloped-edged cap figurines	X	X			
	filleted rod figurines	X	X			
	filleted angular head figurines	X	X			
	Progreso White: Chila Variety	X	X			
	“baby face” figurines		?	X	X	
	punctate eye figurines	X	X	X	X	
Late Formative	shallow elliptical eye figurines	X	X			
	discoidal shell beads	X	X			
	coffee-bean eye figurines	X	X	?		
	monkey figurines	X	X			
	Remojados figurines			X		
	Aleman Black ceramics	X	X			
	Aqua Dulce Black ceramics		X	X	?	
Classic	hair-like ear pendants (on figurines)	X	X			
	cylindrical manos	X	X			?
	Panuco B figurines	X	X			
	Panuco A figurines	X	X			
	portrait figurines	X	X			
	Panuco C figurines	X				
	high filleted or incised headdresses (fig.)	X	X	X		
	oblong, plano-convex metates	X	X			
	long, triangular shell pectorials	X	X			?
	teardrop ear pendants	X	X			
	“San Jose Actenco” figurines		X			
	Nopiloa figurines			X		
	“Smiling face” figurines			X		
	“Mayanoid” figurines			X	?	
	Lirios figurines			X		
	Jonuta figurines				?	
	Tajin utility ceramics	X	X	X		
wheeled animal figurines			?			
spherical grooved stone/clay line sinkers		X	X			
Post- Classic	wheeled animal figures	X	?	X		
	unfired anthropomorphic clay altars			X		
	monumental fired clay figures			X		
	crenate headdresses	X	X			
	Las Flores Black-on-Red	X				
	Tabuco Black-on-Red		X			
	Tres Picos ceramics		X	X		
	Isla de Sacrificios		X	X		
Russi Black-on-white		X				

Fig. 6. continued

Material Aspect		Cultural Subarea				
	Non-ceramic Art and Ideographic	North	North-Central	South-Central	South	MAYA northwest
Early Formative	monumental stone seated figures				X	
	monumental stone altars				X	
	glyphs				X	
Middle Formative	monumental stone seated figures			X	X	
	"colossal heads"			X	X	
	carved stelae			X	X	
	"bearded men" motif			X	X	
	ehecatcoxcatl motif (as glyph)		X			
	stone boxes			?	X	
	convex walled yokes			?		
Late Formative	mosiac pavements				X	
	glyphs			X	X	
	carved stela			X		
	"cipactli" motif yokes		?	X		
	"classic Veracruz" style			?		
	closed yokes			X		
	long count dating			X		
Classic	"olliu" glyph		?	?		
	fresco decoration	X	X	?		
	long count dating			X		X
	bar-dot representations (including ceramic)		X	X	X	X
	anthropomorphic (head ends, up-raised hands) yokes		X			X
	"serpent end" yokes			X		?
	"cipactli" motif yokes	X	X	X	X	?
high-peaked "hachas"		X				
Post-Classic	"hachas"		X	X		X
	stucco sculpture		X			X
	murals	?	X	?		X
	"Classic Veracruz" style (wood and stone artifacts)		X	X		
	carved stelae		X	X	?	X
	carved ball court tablets		X			?
	carved stone altars and wall tablets		X			X
	composite pyrite ear plugs		X			?
	B-4 dental mutilation					
	Oliva shell tinklers	X	X			?
	jade bead in mouth of burials		X	X	?	?
	trophy heads	X	X	X	?	?
	Post-Classic	"Palmas"		X	X	
stucco sculpture			X	X		
large effigy - free standing stone sculpture		X	X			
small copper bells		X	X	X		
A-1/A-2 dental mutilation		X	X	X		
elaborately carved shell gorgets		X				
very large copper bells	X	X				

BIBLIOGRAPHY

- BATRES, LEOPOLDO
1908 *Civilizacion Prehistorica de las Riberas del Papaloapan y Costa de Sotavento*. Mexico.
- BERNAL, IGNACIO
1969 *The Olmec World*. University of California Press, Berkeley.
- BLOM, FRANZ AND OLIVER LA FARGE
1926-27 *Tribes and Temples*. Tulane University. New Orleans.
- CARRION, JUAN DE
1965 *Descripcion del Pueblo de Gueytlalpan, aclarations and historical-archaeological notes by Jose Garcia Payon*, Cuadernos de la Facultad de Filosofia. *Letras, y Ciencias* no. 23, Xalapa, (1581).
- CODICE DE CHICONQUIACO
1542 Copy of 1877 in Instituto de Antropologia. Jalapa.
- COE, MICHAEL D.
1965 "The Olmec Style and its Distribution," *Handbook of Middle American Indians*, vol. 3. Robert Wauchope, editor. University of Texas Press, Austin, 739-775.
- CONSEJO NACIONAL DE RECURSOS NATURALES NO RENOVABLES
1970 *Mineria Prehispanica en la Sierra de Queretaro, Secretaria del Patrimonio Nacional*. Mexico, D.F.
- COVARRUBIAS, MIGUEL
1957 *Indian Art of Mexico and Central America*, Alfred A. Knopf, New York.
- DRUCKER, PHILIP
1943a *Ceramic Sequences at Tres Zapotes, Veracruz, Mexico*. Bulletin 140, *Smithsonian Institution, Bureau of American Ethnology*. Washington, D.C.
1943b *Ceramic Stratigraphy at Cerro de las Mesas, Veracruz, Mexico*, Bulletin 141. *Smithsonian Institution, Bureau of American Ethnology*, Washington, D.C.
- DU SOLIER, WILFRIDO, ALEX D. KRIEGER AND JAMES B. GRIFFIN
1947 *The Archaeological Zone of Buena Vista, Huixtla, San Luis Potosi, Mexico*. *American Antiquity*. XIII, July, 15-32.
- EKHOLM, GORDON F.
1944 *Excavations at Tampico and Panuco in the Huasteca, Mexico*. *Anthropological Papers, vol. XXXVIII, Part V*. American Museum of Natural History, New York.
1953 *Notas arqueologicas sobre el Valle de Tuxpan y areas circunvecinas. Huastecos, Totonacos y sus Vecinos*, *Revista Mexicana de Estudios Antropologicos, Tomo XIII, 2 and 3*. Mexico, 413-421.
- FEWKES, JESSE WALTER
1907 *Certain Antiquities of Eastern Mexico, Extract from the Twenty-Fifth Annual Report of Bureau of American Ethnology*. Washington, D.C.
- GARCÍA PAYÓN, JOSÉ
1971 *Archaeology of Central Veracruz*. *Handbook Middle American Indians*, XI, Robert Wauchope, editor. University of Texas Press, Austin, 505-542.
- GROVE, DAVID C.
1967 *Localizacion de sitios en el centro y este del Estado de Morelos*, *Boletin, 29, Instituto Nacional de Antropologia e Historia*. Mexico, 31-34.
- HUMBOLDT, ALEXANDER VON
1811 *Essai Politique sur le royaume de La Nouvelle-Espagne*, Paris.
- INSTITUTO DE CIENCIAS
1963 *Regiones Naturales y Aspectos Demograficos del Estado de Veracruz*. Cuadernos del Instituto de Ciencias, 2. Universidad Veracruzana, Jalapa.
- KRICKEBERG, WALTER
1918-25 *Die Totnaken*, Baessler-Archiv, Bond VII, Bond IX. Berlin.
- KROEBER, A.L.
1939 *Cultural and Natural Areas of Native North America*, *University Of California Publications in American Archaeology and Ethnology*, 38. Berkeley.
- MACNEISH, RICHARD S.
1954 *An Early Archaeological Site Near Panuco, Veracruz*, *Transactions of the American Philosophical Society, New Series, vol. 44, Part 5*, Philadelphia.
- MEDELLÍN ZENIL, ALFONSO
1960 *Ceramicas del Totonacapan*. Universidad Veracruzana, Jalapa.
- MELGAREJO VIVANCO, JOSE LUIS
1949 *Epoca Prehispanica. Historia de Veracruz*, Tomo I, Manuel Trens, Gobierno de Veracruz, Jalapa.
1970 *Los Lienzos de Tuxpan*, Editorial la Estampa Mexicana, Mexico.
- NEBEL, CHARLES
1836 *Voyage Pittoresque et Archaeologique dans la Partie la plus interessante du Mexique*, Paris.
- PASO Y TRONCOSO, FRANCISCO DEL
1912 *Las Ruinas de Cempoala y del Templo del Tajin*, notes arranged by Jesus Galindo y Villa, Mexico.
- RUIZ, DIEGO
1785 "Papanla," *Gazeta de Mexico*, no. 42, martes 12 de julio, Mexico.
- SANDERS, WILLIAM T.
1971 *Cultural Ecology and Settlement Patterns on the Gulf Coast*, *Handbook Middle American Indians*. vol. 11, University of Texas Press. Austin, 543-557.
- SECRETARIA DE RECURSOS HIDRAULICOS
1961 *Datos de la Region del Baja Panuco*, *Boletin Hidrologico no. 15*, Mexico, D.F., febrero.
- SPINDEN, ELLEN S.
1933 *The place of Tajin in Totonac Archaeology*, *American Anthropologist*, N.S., vol. XXXV, 225-270.
- STEVENS, RAYFRED L.
1965 "The soils of Middle America and their relation to Indian Peoples and Cultures," *Handbook Middle American Indian*, vol. 1, Robert Wauchope, editor, University of Texas Press, Austin, 265-315.
- STIRLING, MATTHEW W.
1941 "Expedition unearths buried masterpieces," *National Geographic Magazine*, 80, Washington, D.C., 277-302.
- STREBEL, HERMANN
1885-1889 *Alt-Mexiko, Archaeologische Beitrage zur Kulturgeschichte Seiner Bewohner*, Hamburg.

- SWADESH, MAURICIO
 1961 "Interrelaciones de las lenguas mayas." *Anales*, XIII. *Instituto Nacional de Antropología e Historia*, Mexico. 231-267.
- TROIKE, RUDOLPH C.; NANCY P. TROIKE; JOHN A. GRAHAM
 1972 "Preliminary Report on Excavations in the Archaeological Zone of Rioverde, San Luis Potosi, Mexico." *Studies in the Archaeology of Mexico and Guatemala*, edited: John A. Graham, *Contributions of the University of California Archaeological Research Facility*, October, Berkeley. 69-87.
- WEIANT, C.W.
 1943 *An Introduction to the Ceramics of Tres Zapotes, Veracruz, Mexico*. Bulletin 139, *Bureau of American Ethnology, Smithsonian Institution*, Washington, D.C.
- WILKERSON, S. JEFFREY K.
 1973 "An archaeological sequence from Santa Luisa, Veracruz, Mexico." *Contributions of the University of California Archaeological Research Facility*, no. 18, August.
- 1973 "La secuencia arqueologica-historica de Santa Luisa, Veracruz, Mexico." *Anuario Antropologica*, Universidad Veracruzana, Jalapa.
- In press "Resultados Preliminares del Estudio de Ecologia Cultural en el Norte-Central de Veracruz durante 1973." *Balance y Perspectiva de la Antropologia en Mesoamerica y el Norte de Mexico*, *Sociedad Mexicana de Antropologia*. Mexico.
- n.d. "Ethnogenesis of the Huastecs and Totonacs: Early Cultures of North-Central Veracruz at Santa Luisa, Mexico" (1972).
- m.s. "Prehistoric Gulf Dynamics: Figurine Complexes of Central Veracruz."
- WISSLER, CLARK
 1950 *The American Indian*. New York.